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(57) Abstract: Oligonucleotide inhibitors that inhibit expression of a mammalian MBD2/DNA demethylase (MBD2/dMTase) are provided. The oligonucleotide inhibitors can be used to inhibit the growth or proliferation of tumour cells *in vitro* and *in vivo*. The use of the oligonucleotide inhibitors in the treatment of cancer and methods of identifying potential target genes for cancer therapy or diagnosis using the oligonucleotide inhibitors are also provided.

WO 2004/001027 A1